

IN THE CLAIMS

What is claimed is:

1. (Currently Amended) A method comprising:

receiving a specifier of a user selection of a current design feature to be modeled, the specifier being selected by a user from a plurality of available design features feature specifiers;

in response to receiving the specifier of the current design feature, identifying a plurality of behavioral parameters specific applicable to the current design feature selected by a user, and presenting the plurality of behavioral parameters to the user,

receiving user input identifying one or more behavioral parameters selected from the plurality of behavioral parameters by the user for the current design feature; and

upon receiving the user input, modeling the current design feature by calculating a geometry of the current design feature based on the one or more behavioral parameters selected by the user and context defined by other design features of an object having the current design feature.

2. (Previously Presented) The method defined in Claim 1 wherein the one or more behavioral parameters reflect functionality intended by the user for the current design feature.

3. (Previously Presented) The method defined in Claim 2 further comprising:

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Fig 3

receiving a user request to modify a geometric parameter of the modeled design feature; and

modifying the geometry of the modeled design feature while maintaining the intended functionality of the modeled design feature as identified by the one or more behavioral parameters of the modeled design feature and relationships of the modeled design feature with the other design features of the object.

4. (Previously Presented) The method defined in Claim 1 further comprising:  
receiving one or more geometric parameters pertaining to the current design feature from the user.

5. (Original) The method defined in Claim 1 further comprising:  
displaying a user interface facilitating selection of the one or more behavioral parameters by the user.

6. (Original) The method defined in Claim 1 further comprising:  
displaying the modeled design feature on a screen.

7. (Original) The method defined in Claim 1 further comprising:  
defining a plurality of behavioral parameters for each of a plurality of design features using a set of rules associated with a corresponding application.

8. (Previously Presented) The method defined in Claim 1 wherein the geometry of the current design feature is calculated based on relationships of the current design feature with a geometry of the other design features of the object.

9. (Previously Presented) The method defined in Claim 8 further comprising:  
determining relationships between the current design feature and the other design features of the object based on the one or more behavioral parameters.

10. (Previously Presented) The method of defined in Claim 9 further comprising:  
receiving a user request to modify any one of a geometric and behavioral parameter of one of the other design features;  
modifying said one of the other design features; and  
adjusting the modeled design feature to maintain functionality defined by the one or more behavioral parameters.

11. (Previously Presented) An apparatus comprising:  
a parameter controller to identify a plurality of behavioral parameters specific to a current design feature selected by a user;  
a user interface to display a plurality of available design features for a user selection of the current design feature, to display the plurality of behavioral parameters specific to the

current design feature, to facilitate user selection of one or more behavioral parameters from the plurality of behavioral parameters, and to receive user input identifying the one or more behavioral parameters selected by the user; and

a modeler to model the current design feature by calculating a geometry of the current design feature based on the one or more behavioral parameters selected by the user and context defined by other design features of an object having the current design feature.

12. (Previously Presented) The apparatus of claim 11 wherein the one or more behavioral parameters reflect functionality intended by the user for the current design feature.

13. (Previously Presented) The apparatus of claim 11 wherein the modeler is further to receive a user request to modify a geometric parameter of the modeled design feature, and to modify the geometry of the modeled design feature while maintaining the intended functionality of the modeled design feature as identified by the one or more behavioral parameters of the modeled design feature and relationships of the modeled ~~current~~ design feature with the other design features of the object.

14. (Previously Presented) The apparatus of claim 11 wherein the user interface is further to facilitate user input of one or more geometric parameters pertaining to the current design feature.

15. (Previously Presented) The apparatus of claim 11 wherein the user interface is further to display the current design feature.

16. (Previously Presented) The apparatus of claim 11 wherein the parameter controller is further to define a plurality of behavioral parameters for each of a plurality of design features using a set of rules associated with a corresponding application.

17. (Currently Amended) The apparatus of claim 11 wherein the modeler is to [[to]] use relationships of the current design feature with geometry of the other design features of the object when calculating the geometry of the current design feature.

18. (Previously Presented) The apparatus of claim 17 wherein the modeler is further to determine relationships between the current design feature and the other design features of the object based on the one or more behavioral parameters.

19. (Previously Presented) The apparatus of claim 18 wherein the modeler is further to receive a user request to modify any one of a geometric and behavioral parameter of one of the other design features, to modify said one of the other design features, and to adjust the modeled design feature to maintain functionality defined by the one or more behavioral parameters.

20. (Previously Presented) A system comprising:

means for receiving a user selection of a current design feature from a plurality of available design features;

means for identifying a plurality of behavioral parameters a specific to the current design feature selected by a user;

means for presenting the plurality of behavioral parameters to the user;

means for receiving user input identifying one or more behavioral parameters selected from the plurality of behavioral parameters by the user; and

means for modeling the current design feature by calculating a geometry of the current design feature based on the one or more behavioral parameters selected by the user and context defined by other design features of an object having the current design feature.

21. (Previously Presented) A computer readable medium comprising executable instructions which when executed on a processing system cause said processing system to perform a method comprising:

receiving a user selection of a current design feature from a plurality of available design features;

identifying a plurality of behavioral parameters specific to the current design feature selected by a user;

presenting the plurality of behavioral parameters to the user;

receiving user input identifying one or more behavioral parameters selected from the plurality of behavioral parameters by the user; and

modeling the current design feature by calculating a geometry of the current design feature based on the one or more behavioral parameters selected by the user and context defined by other design features of an object having the current design feature.

22. (Previously Presented) The method defined in Claim 2 further comprising:  
maintaining the functionality intended by the user for the current design feature during a design process of the object.

23. (Previously Presented) The method defined in Claim 1 wherein presenting the plurality of behavioral parameters to the user comprises:

displaying to the user a plurality of characteristics of the current design feature selected by the user and a set of functional options for each of the plurality of characteristics, wherein each of the plurality of behavioral parameters contains one of the plurality of characteristics and one functional option from a list of functional options available for said one of the plurality of characteristics.

24. (Previously Presented) The method defined in Claim 23 wherein receiving user input identifying one or more behavioral parameters selected from the plurality of behavioral parameters comprises:

allowing the user to select one functional option from a list of functional options for each of the plurality of characteristics.

25. (Previously Presented) The apparatus of claim 12 further comprising:  
maintaining the functionality intended by the user for the current design feature during a design process of the object.

26. (Previously Presented) The apparatus of claim 11 wherein the user interface is to display the plurality of behavioral parameters to the user by displaying to the user a plurality of characteristics of the current design feature selected by the user and a set of functional options for each of the plurality of characteristics,

wherein each of the plurality of behavioral parameters contains one of the plurality of characteristics and one functional option from a list of functional options available for said one of the plurality of characteristics.

27. (Previously Presented) The apparatus of claim 26 wherein the user interface is to facilitate user selection by allowing the user to select one functional option from a list of functional options for each of the plurality of characteristics.